the details of its osteology. It was not a, large creature (see Fig. 110, p. 196), about 6 feet in length, with a small head. The feet were more or less plantigrade, and five-toed. The last phalanges of the toes show that they carried hoofs and not claws ; yet the fore-feet look a little as if they could be used as grasping organs. The third digit of both hind- and fore-feet exceeds the others, and tlius a Perissodactyle-like foot characterised this Eocene creature. The tail is exceedingly long, and must have reached the ground as the animal walked. This is of course by no means an Ungulate character. Still, in the totality of its organisation the animal was decidedly Ungulate, though Professor Cope spoke of *PJienacodus* as not merely an ancestral Ungulate but as the parent form of Insect!vores, Carnivores, Lemurs,, Monkeys, and Man himself I The scapula indeed is from its breadth and oval contour rather like that of a Carnivore. The clavicles as in other Ungulates are absent. The femur is Perissodactyle rather than Artie-dactyl e in the presence of a third trochanter. The creature had fifteen pairs of ribs and five or six lumbar veitebrae. The two bones of the leg which lie below the femur are perfectly distinct and separate. A cast of the brain-case shows that the cerebral hemispheres were smooth and small, the cerebellum of course completely uncovered and nearly as large as the cerebrum. The olfactory lobes were also large. The complete skeleton of *PhenacodMS* has lately been excavated more fully from the enveloping matrix by Professor Osborn,[1] and mounted in what is regarded as the natural position of the beast. It appears that though five-toed it went upon the three middle toes only, and furthermore that of these the middle one was the more prevailing, so that *Phenacodus* was distinctly " Perissodactyle/* at least in habit. Moreover its " long hind-quarters, the long powerful tail . . . are reminiscent of Creodont ancestry." The genus was European and American in range.

Meniscotheriutn (= *Hyraoops*[2]) comprises several forms of about the size of a fox ; they are both European and American in range. The teeth are more distinctly Ungulate in

form than those of *Phenacodus,* with a W-shaped outer wall. The skull is described as possessing " indifferent, primitive characters/* permitting a comparison with those of Opossums, Inseetivores, and

[1] ***Bull. A'mer. Mw. Nat. Hist.*** **x. 1898, p. 159.**
[2] **Marsh, *~Amer. JToum,. Set.* xlill. 1892, p. 447.**